



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0143; Project Identifier MCAI-2021-01401-T; Amendment 39-22061; AD 2022-11-11]

RIN 2120-AA64

Airworthiness Directives; De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain De Havilland Aircraft of Canada Limited (type certificate previously held by Bombardier, Inc.) Model DHC-8-401 and -402 airplanes. This AD was prompted by reports of a certain bolt at the pivot pin link being found missing or having stress corrosion cracking. This AD requires a modification to the nose landing gear (NLG) shock strut assembly. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard,

Toronto, Ontario M3K 1Y5, Canada; telephone 416–375–4000; fax 416–375–4539; email thd@dehavilland.com; internet <https://dehavilland.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0143.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0143; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Antariksh Shetty, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued AD CF-2009-29R4, dated October 1, 2021 (TCCA AD CF-2009-29R4) (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes. You may examine the

MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0143.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain De Havilland Aircraft of Canada Limited (type certificate previously held by Bombardier, Inc.) Model DHC-8-401 and -402 airplanes. The NPRM published in the *Federal Register* on February 23, 2022 (87 FR 10112). The NPRM was prompted by reports of a certain bolt at the pivot pin link being found missing or having stress corrosion cracking. The NPRM proposed to require a modification to the NLG shock strut assembly. The FAA is issuing this AD to address failure of the pivot pin retention bolt, which could result in a loss of directional control or loss of an NLG tire during takeoff or landing, which could lead to runway excursions. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from Air Line Pilots Association, International (ALPA), who supported the NPRM without change.

The FAA received additional comments from Horizon Air. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Issue a Single AD

Horizon Air requested that the FAA issue a single AD instead of both AD 2021-25-12, Amendment 39-21856 (86 FR 72174, December 21, 2021) (AD 2021-25-12), and this AD. Horizon Air noted that in the "Relationship Between Proposed AD and AD 2021-25-12" paragraph of the NPRM, it stated it was determined that a stand-alone AD would be more appropriate. Horizon Air pointed out this AD and AD 2021-25-12 were both prompted by the same unsafe condition and the applicability is the same. Horizon Air suggested that this final rule replace AD 2021-25-12 in order to

have the subject matter mandates in a singular rule. Horizon Air concluded that having the new AD state the retained requirements and new requirements would promote compliance, be historically consistent, and be congruent with the related Transport Canada airworthiness directive (TCCA AD CF-2009-29R4).

The FAA disagrees with the commenter's request. The FAA acknowledges that a single AD is typically more appropriate. However, AD 2021-25-12 is an immediately adopted rule (i.e., a final rule; request for comment) that includes actions with short compliance times. The FAA could not include Part I of TCCA AD CF-2009-29R4 in AD 2021-25-12 due to the longer compliance time for the required modification, which necessitated issuing an NPRM with a public comment period. The FAA considered superseding AD 2021-25-12 to include retained actions and the modification, which has a 1,600 flight cycles or 9-month compliance time. However, issuing an NPRM to supersede AD 2021-25-12 would have delayed the rulemaking process. The FAA determined issuing a stand-alone NPRM for the modification addresses the unsafe condition in a timely manner as the final rule for the stand-alone NPRM (this AD) will be published sooner than when a final rule for an NPRM that supersedes AD 2021-25-12 would be published. The FAA has not changed this AD in this regard.

Request to Include a Statement to Indicate the Association with AD 2021-25-12

Horizon Air requested that the FAA include a statement to indicate the association with AD 2021-25-12. Horizon Air stated that the actions required by AD 2021-25-12 are only applicable to airplanes with pivot pin retention bolt part number (P/N) NAS6204-14D installed on the NLG assembly; consequently, if this part is not installed the rule is not applicable. Horizon Air also stated that this AD mandates the installation of this part. Horizon Air concluded that a statement indicating the association with AD 2021-25-12 would enhance the awareness of the compliance requirements.

The FAA concurs with the commenter's request. The actions required by AD 2021-25-12 only apply to airplanes that have installed pivot pin retention bolt P/N NAS6204-14D in the NLG assembly and therefore do not apply to those airplanes that do not have that pivot pin retention bolt installed. The modification required by paragraph (g) of this AD results in the installation of pivot pin retention bolt P/N NAS6204-14D. After an operator has complied with this AD, the operator is then subject to AD 2021-25-12. As specified in paragraph (g) of AD 2021-25-12, the operator must revise the existing maintenance or inspection program “. . .within 30 days after the installation of pivot pin retention bolt part number P/N NAS6204-14D. . . .” As specified in paragraph (i) of AD 2021-25-12, repetitive lubrications of the part are required at intervals not to exceed 400 flight cycles. The FAA has added Note 1 to paragraph (g) of this AD to refer to AD 2021-25-12 after installing pivot pin retention bolt P/N NAS6204-14D.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information under 1 CFR Part 51

De Havilland Aircraft of Canada Limited has issued Service Bulletin 84-32-161, Revision B, dated March 31, 2021, including UTC Aerospace Systems Service Bulletin 47100-32-145, Revision 3, dated March 26, 2021. This service information describes procedures for modifying the NLG shock strut assembly by replacing special bolt, part number (P/N) 47205-1 or 47205-3, with a new retention bolt, P/N NAS6204-14D (the

modification includes a reverse orientation of the retention bolt and a rework of the weight on wheel (WOW) proximity sensor cover to provide clearance for the re-oriented retention bolt).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Difference Between This AD and the MCAI

This AD only requires the modification specified in Part I of TCCA AD CF-2009-29R4. The other actions specified in TCCA AD CF-2009-29R4 are required by FAA AD 2021-25-12.

Costs of Compliance

The FAA estimates that this AD affects 54 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
4 work-hours X \$85 per hour = \$340	\$8	\$348	\$18,792

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-11-11 De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.): Amendment 39-22061; Docket No. FAA-2022-0143; Project Identifier MCAI-2021-01401-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to De Havilland Aircraft of Canada Limited (type certificate previously held by Bombardier, Inc.) Model DHC-8-401 and -402 airplanes, certificated in any category, serial numbers 4001 and 4003 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Unsafe Condition

This AD was prompted by reports of a certain bolt at the pivot pin link being found missing or having stress corrosion cracking. The FAA is issuing this AD to address failure of the pivot pin retention bolt, which could result in a loss of directional control or loss of a nose landing gear (NLG) tire during takeoff or landing, which could lead to runway excursions.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Modification

For any airplane having an NLG shock strut assembly, part number (P/N) 47100-XX (where XX represents any number), that has special bolt P/N 47205-1 or 47205-3: Within 1,600 flight cycles or 9 months after the effective date of this AD, whichever occurs first, modify the NLG shock strut assembly, in accordance with paragraph 3.B., "Procedure," of the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-32-161, Revision B, dated March 31,

2021, including UTC Aerospace Systems Service Bulletin 47100-32-145, Revision 3, dated March 26, 2021.

Note 1 to paragraph (g): After installing pivot pin retention bolt part number NAS6204-14D, AD 2021-25-12, Amendment 39-21856 (86 FR 72174, December 21, 2021) applies to pivot pin retention bolt part number NAS6204-14D.

(h) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using De Havilland Aircraft of Canada Limited Service Bulletin 84-32-161, dated April 7, 2020, including UTC Aerospace Systems Service Bulletin 47100-32-145, dated April 3, 2020; or De Havilland Aircraft of Canada Limited Service Bulletin 84-32-161, Revision A, dated January 27, 2021, including UTC Aerospace Systems Service Bulletin 47100-32-145, Revision 2, dated January 4, 2021.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2009-29R4, dated October 1, 2021, for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0143.

(2) For more information about this AD, contact Antariksh Shetty, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (4) of this AD.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) De Havilland Aircraft of Canada Limited Service Bulletin 84-32-161, Revision B, dated March 31, 2021, including UTC Aerospace Systems Service Bulletin 47100-32-145, Revision 3, dated March 26, 2021.

Note 2 to paragraph (k)(2)(i): De Havilland issued De Havilland Service Bulletin 84-32-161, Revision B, dated March 31, 2021, with UTC Aerospace Systems Service Bulletin 47100-32-145, Revision 3, dated March 26, 2021, attached as one "merged" file for the convenience of affected operators.

(ii) [Reserved]

(3) For service information identified in this AD, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd@dehavilland.com; internet <https://dehavilland.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 17, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-11758 Filed: 6/2/2022 8:45 am; Publication Date: 6/3/2022]